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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

CHEVALIER, ALICIA ANN

ART UNIT

PAPER NUMBER

1772

DATE MAILED: 02/11/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/522,353

Applicant(s)

PUPPIN, GIUSEPPE

Examiner

Alicia Chevalier

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 December 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 6-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 6-40 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

RESPONSE TO AMENDMENT

WITHDRAWN REJECTIONS

1. The objection to the claims and the 35 U.S.C. §112, 1st and 2nd paragraph rejections of record in paper #13, pages 2-7, paragraphs #6-9 have been withdrawn due to Applicant's amendment in paper #15.
2. The 35 U.S.C. §102 and §103 rejections of record in paper #13, pages 7-8, paragraphs #11 and 12 have been withdrawn due to Applicant's amendment in paper #15.

NEW REJECTIONS

3. **The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.**

Claim Rejections - 35 USC § 112

4. Claims 1-4 and 6-40 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1, 39 and 40 are unclear in scope, which renders them vague and indefinite. The claim recites "a fabric embedded into a first rigid thermoplastic composite area and a second rigid thermoplastic composite area, said areas adjoining through at least one flexible hinged region." It is unclear from the claim language whether Applicant is claiming that the same fabric is embedded in the both the first and second rigid thermoplastic areas or that each area has it's

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own fabric embedded therein. Furthermore, it is unclear if Applicant is claiming that the fabric connects the adjoining areas or if the fabric is even in the at least one flexible hinged region.

The term "rigid" in claim 1-4 and 6-40 is a relative term which renders the claim indefinite. The term "rigid" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. The term rigid thermoplastic is taken only to mean that the rigid areas are more rigid only relative to the hinge region.

Claim 3 is unclear in scope, which renders it vague and indefinite. The claim recites, "said linear region comprises a flexible thermoplastic." It is unclear if this "flexible thermoplastic" is a third layer on the hinge or if it is either the one flexible hinged region or the flexible sealant.

Claim 4 is unclear in scope, which renders it vague and indefinite. The claim recites, "said linear region is coated on both sides by said flexible thermoplastic." It is unclear if this "flexible thermoplastic" is a third and fourth layer on the hinge or if it is either the one flexible hinged region or the flexible sealant.

Claim 25 is unclear in scope, which renders it vague and indefinite. It is unclear if Applicant is claiming that the flexible fabric connects the rigid areas or if the fabric is even in the at least one flexible hinged region.

Claim 29 is unclear in scope, which renders it vague and indefinite. The claim recites, "said linear hinged region comprises a flexible thermoplastic." It is unclear if this "flexible thermoplastic" is a third layer on the hinge or if it is either the one flexible hinged region or the flexible sealant.

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Claim 30 is unclear in scope, which renders it vague and indefinite. The claim recites, "said linear hinged regions are enclosed by a flexible thermoplastic." It is unclear if this "flexible thermoplastic" is a third and fourth layer on the hinge or if it is either the one flexible hinged region or the flexible sealant.

Claim Rejections - 35 USC § 103

5. Claims 1-4 and 6-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Teeter (2,241,101) in view of Joyce (4,503,991).

Teeter discloses a hinge element comprising a fabric cords (embedded fabric and coated flexible hinged region) embedded in a flexible resilient rubber (flexible sealant). The ends of the flexible rubber comprises a thicker edge portions (rigid areas) on each end of the hinge. See column 4, lines 22-32. The hinge provides an improved one-piece non-metallic hinge having flexible exterior faces and a resilient layer of high tensile strength intermediate its faces (col. 2, lines 4-6). The resilient layer of web is formed of the fabric cords embedded in the rubber (col. 4, lines 26-28). The hinge is used in a refrigerator cabinet track/sill.

Claim 2 recites that hinged region comprises a linear region formed between the first and second rigid areas. This limitation is referring to the non-active state of the hinge in an unbent condition. The specification and drawings show that before use the hinge region is linear and when put into use the hinge region is bent at different angles (see figures 1-4). Therefore, since the linear region is one of the positions or rotations the hinge region can be in, the limitation is inherent because the Teeter's hinge is flexible and can be rotated into a linear position.

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Teeter discloses the claimed invention except for the fabric being a woven, non-woven, glass fiber containing, polyamide fiber containing, cellulosic fiber containing, plain weave, or pick fabric or that the thermoplastic is polyvinyl chloride, polyolefin, or polyester. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use a fabric made of woven, non-woven, glass fiber containing, polyamide fiber containing, cellulosic fiber containing, plain weave, or pick fabric or that the thermoplastic is polyvinyl chloride, polyolefin, or polyester, since it have been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended. *In re Leshin*, 125 USPQ 416.

Selection of the relative parts by weight of the components with in the board ranges claimed is taken as being within the ordinary skill of one in the art absent unexpected results.

Teeter discloses all the limitations of the instant claimed invention except for the rigid areas and flexible coating to comprise a thermoplastic material.

Joyce discloses a hinge that can be made from any resilient thermoplastic material, for example, polypropylene, polyethylene, polystyrene, or any similar polymer. It could also be made of a flexible thermoset material such as urethane or flexible thermoset rubber. See column 1, lines 55-60.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a thermoplastic material as the hinge material around the fabric in Teeter because Joyce shows that thermoplastic materials and rubbers are equivalents in the art of hinges.

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It is well settled that a particular shape of a prior invention carries no patentable weight unless the applicant can demonstrate that the new shape provides significant unforeseen improvements to the invention. See *In re Seid*, 161 F.2d 229, 73 USPQ 431 (CCPA 1947) (Claim was directed to an advertising display device comprising a bottle and a hollow member in the shape of a human figure from the waist up which was adapted to fit over and cover the neck of the bottle, wherein the hollow member and the bottle together give the impression of a human body. Appellant argued that certain limitations in the upper part of the body, including the arrangement of the arms, were not taught by the prior art. The court found that matters relating to ornamentation only which have no mechanical function cannot be relied upon to patentably distinguish the claimed invention from the prior art.) Also, see *In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966) (the court held that the configuration of the claimed disposable plastic nursing container was a matter of choice which a person of ordinary skill in the art would have found obvious absent persuasive evidence that the particular configuration of the claimed container was significant.) In the instant case, the application does not indicate any new, significant attributes of the invention due to its shape which would have been unforeseen to one of ordinary skill in the art.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to change the shape of the rigid areas to include bends. One skilled in the art would have been motivated to do so in order to fit the rigid areas into or on the intended device receiving the hinge, i.e. cabinets, wall panels, etc.

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6. Claims 1-4 and 6-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vliet (2,607,411) in view of Joyce (4,503,991).

Vliet discloses a hinge comprising a rubber material (flexible sealant and rigid material) with a layer of fabric (embedded fabric and coated flexible hinged region) embedded throughout the hinge. The hinge member terminated in enlarged or bulbous edge portions (rigid areas). The hinge is used in a refrigerator cabinet track/sill.

Claim 2 recites that hinged region comprises a linear region formed between the first and second rigid areas. This limitation is referring to the non-active state of the hinge in an unbent condition. The specification and drawings show that before use the hinge region is linear and when put into use the hinge region is bent at different angles (see figures 1-4). Therefore, since the linear region is one of the positions or rotations the hinge region can be in, the limitation is inherent because the Vliet's hinge is flexible and can be rotated into a linear position.

Vliet discloses the claimed invention except for the fabric being a woven, non-woven, glass fiber containing, polyamide fiber containing, cellulosic fiber containing, plain weave, or pick fabric or that the thermoplastic is polyvinyl chloride, polyolefin, or polyester. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use a fabric made of woven, non-woven, glass fiber containing, polyamide fiber containing, cellulosic fiber containing, plain weave, or pick fabric or that the thermoplastic is polyvinyl chloride, polyolefin, or polyester, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended. *In re Leshin*, 125 USPQ 416.

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Vliet discloses all the limitations of the instant claimed invention except for the rigid areas and flexible coating to comprise a thermoplastic material.

Joyce discloses a hinge that can be made from any resilient thermoplastic material, for example, polypropylene, polyethylene, polystyrene, or any similar polymer. It could also be made of a flexible thermoset material such as urethane or flexible thermoset rubber. See column 1, lines 55-60.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a thermoplastic material as the hinge material around the fabric in Vliet because Joyce shows that thermoplastic materials and rubbers are equivalents in the art of hinges.

It is well settled that a particular shape of a prior invention carries no patentable weight unless the applicant can demonstrate that the new shape provides significant unforeseen improvements to the invention. See *In re Seid*, 161 F.2d 229, 73 USPQ 431 (CCPA 1947) (Claim was directed to an advertising display device comprising a bottle and a hollow member in the shape of a human figure from the waist up which was adapted to fit over and cover the neck of the bottle, wherein the hollow member and the bottle together give the impression of a human body. Appellant argued that certain limitations in the upper part of the body, including the arrangement of the arms, were not taught by the prior art. The court found that matters relating to ornamentation only which have no mechanical function cannot be relied upon to patentably distinguish the claimed invention from the prior art.) Also, see *In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966) (the court held that the configuration of the claimed disposable plastic nursing container was a matter of choice which a person of ordinary skill in the art would have found obvious absent persuasive evidence that the particular configuration of the claimed

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container was significant.) In the instant case, the application does not indicate any new, significant attributes of the invention due to its shape which would have been unforeseen to one of ordinary skill in the art.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to change the shape of the rigid areas to include bends. One skilled in the art would have been motivated to do so in order to fit the rigid areas into or on the intended device receiving the hinge, i.e. cabinets, wall panels, etc.

7. Claims 1-4 and 6-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hutchison et al. (4,463,046) in view Teeter (2,241,101).

Hutchison discloses a synthetic resin panel joined by an integral hinge. The invention includes three, substantially rigid panel (rigid areas) sections joined by integral, dual-durometer hinges. Each of the hinges comprises a relatively thin ply or web (flexible hinge region) of synthetic resin of the same hardness and composition as the panels. Overlying the thin ply is a second, flexible ply (flexible sealant) of synthetic resin having a hardness substantially less than that of the panels and the hinge ply. In the preferred embodiment, a continuous longitudinal groove or score line is formed in the surface of the ply opposite the flexible hinge ply. See column 2, line 62 to column 3, line 9. The rigid panels, relatively thin ply, and overlying flexible ply can all be made of a thermoplastic material such as polyvinyl chloride or polyolefins (col. 3, lines 50-64). From figure 1 it can be seen that the rigid panels have predetermined bends at 90 degrees at a predetermined distance from the hinged region. The hinge is used in a panel track/sill.

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Claim 2 recites that hinged region comprises a linear region formed between the first and second rigid areas. This limitation is referring to the non-active state of the hinge in an unbent condition. The specification and drawings show that before use the hinge region is linear and when put into use the hinge region is bent at different angles (see figures 1-4). Therefore, since the linear region is one of the positions or rotations the hinge region can be in, the limitation is inherent because the Hutchison's hinge is flexible and can be rotated into a linear position.

Hutchison discloses all the limitations of the instant claimed invention except for an embedded fabric layer in the thermoplastic.

Teeter discloses a hinge element comprising fabric cords (embedded fabric and coated flexible hinged region) embedded in a flexible resilient rubber (flexible sealant). The ends of the flexible rubber comprise thicker edge portions (rigid areas) on each end of the hinge. See column 4, lines 22-32. The hinge provides an improved one-piece non-metallic hinge having flexible exterior faces and a resilient layer of high tensile strength intermediate its faces (col. 2, lines 4-6). The resilient layer of web is formed of the fabric cords embedded in the rubber (col. 4, lines 26-28).

It would have been obvious to one of ordinary skill in the art at the time of the invention to add an embedded fabric to the hinge of Hutchison as taught by Teeter because it would add strength to the hinge of Hutchison.

Hutchison and Teeter disclose the claimed invention except for the fabric being a woven, non-woven, glass fiber containing, polyamide fiber containing, cellulosic fiber containing, plain weave, or pick fabric or that the thermoplastic is polyvinyl chloride, polyolefin, or polyester. It would have been obvious to one having ordinary skill in the art at the time the invention was

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made to use a fabric made of woven, non-woven, glass fiber containing, polyamide fiber containing, cellulosic fiber containing, plain weave, or pick fabric or that the thermoplastic is polyvinyl chloride, polyolefin, or polyester, since it have been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended. *In re Leshin*, 125 USPQ 416.

ANSWERS TO APPLICANT'S ARGUMENTS

8. Applicant's arguments filed in paper #15 regarding the claim objection and the 35 U.S.C. §112, §102 and §103 rejections of record have been considered but are moot since the rejections have been withdrawn.

Conclusion


9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alicia Chevalier whose telephone number is (703) 305-1139. The Examiner can normally be reached on Monday through Thursday from 8:00 a.m. to 5:00 p.m. The Examiner can also be reached on alternate Fridays

If attempts to reach the Examiner are unsuccessful, the Examiner's supervisor, Harold Pyon can be reached by dialing (703) 308-4251. The fax phone number for the organization official non-final papers is (703) 872-9310. The fax number for after final papers is (703) 872-9311.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose phone number is (703) 308-0661.

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2/4/03



HAROLD PYON
SUPERVISORY PATENT EXAMINER
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2/5/03